

Contributors

JS working on *Chlamydia trachomatis* infections, database management, writing of the manuscript; CS responsible for the statistical analyses; IV and SM, technicians performing all chlamydia typing experiments (culture and PCR based RFLP typing) and sample database management; HSAF, in charge of the STD outpatient clinic in Amsterdam, responsible for the logistics of the sample collection, critically reviewing the manuscript; ASP and RAC, providing the setting for the work performed, guidance of JS on this topic, and critically reading the manuscript; SAM, responsible for the study design, direct guidance of JS, critically reading the manuscript.

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References

- Morré SA, Ossewaarde JM, Lan J, *et al.* Serotyping and genotyping of genital *Chlamydia trachomatis* isolates reveal variants of serovars Ba, G, and J as confirmed by omp1 nucleotide sequence analysis. *J Clin Microbiol* 1998;**36**:345–51.
- Dean D, Miller K. Molecular and mutation trend analysis of omp1 alleles for serovar E of *Chlamydia trachomatis*. Implications for the immunopathogenesis of disease. *J Clin Invest* 1997;**99**:475–83.
- Gerbase A, Rowley J, Heymann D, *et al.* Global prevalence and incidence estimates of selected curable STDs. *Sex Transm Infect* 1998;**74**:S12–S14.
- Morré SA, Welte R, Postma MJ. Major improvements in cost effectiveness of screening women for *Chlamydia trachomatis* using pooled urine specimens and high performance testing. *Sex Transm Infect* 2002;**78**:74–5.
- Postma MJ, Welte R, van den Hoek JA, *et al.* Comparing cost effectiveness of screening women for *Chlamydia trachomatis* in systematic and opportunistic approaches. *Sex Transm Infect* 2002;**78**:73–4.
- Anttila T, Saikku P, Koskela P, *et al.* Serotypes of *Chlamydia trachomatis* and risk for development of cervical squamous cell carcinoma. *JAMA* 2001;**285**:47–51.
- Wagenvoort JHT, Suchland RJ, Stamm WE. Serovar distribution of urogenital *Chlamydia trachomatis* strains in the Netherlands. *Genitourin Med* 1988;**64**:159–61.
- Van de Laar MJ, Lan J, van Duynhoven YT, *et al.* Differences in clinical manifestations of genital chlamydial infections related to serovars. *Genitourin Med* 1996;**72**:261–5.

- Morré SA, Ossewaarde JM, Lan J, *et al.* Serotyping and genotyping of genital *Chlamydia trachomatis* isolates reveal variants of serovars Ba, G, and J as confirmed by omp1 nucleotide sequence analysis. *J Clin Microbiol* 1998;**36**:345–51.
- Ossewaarde JM, Rieffe M, de Vries A, *et al.* Comparison of two panels of monoclonal antibodies for determination of *Chlamydia trachomatis* serovars. *J Clin Microbiol* 1994;**32**:2968–74.
- Lan J, Melgers I, Meijer CJLM, *et al.* Prevalence and serovar distribution of asymptomatic cervical *Chlamydia trachomatis* infections as determined by highly sensitive PCR. *J Clin Microbiol* 1995;**33**:3194–7.
- Van Duynhoven YT, Ossewaarde JM, Derksen-Nawrocki RP, *et al.* *Chlamydia trachomatis* genotypes: correlation with clinical manifestations of infection and patients' characteristics. *Clin Infect Dis* 1997;**26**:314–22.
- Morré SA, Rozendaal L, van Valkengoed IGM, *et al.* Urogenital *Chlamydia trachomatis* serovars in men and women with symptomatic and asymptomatic infection: an association with clinical manifestations? *J Clin Microbiol* 2000;**38**:2292–6.
- Morré SA. *Chlamydia trachomatis* infections in the human urogenital tract. Thesis. 1999;chapter 9.

Surveillance of sexually transmitted infections in primary care

Surveillance for sexually transmitted infections must respond to increases in the provision of sexual health services outside genitourinary clinics. Simms *et al.*¹ propose repeated panel surveys in general practices to improve surveillance in primary care, monitor changes in prevalence over time, and address the current lack of behavioural data.

There are some limitations to this approach. Firstly, prevalence surveys will not measure actual diagnostic activity in primary care and other clinical settings. This is essential for determining whether proposals from the National Strategy for Sexual Health² are being implemented effectively. Secondly, periodic surveys in different areas could not readily identify outbreaks. In the Bristol area, for example, most cases in an ongoing outbreak of sexually transmitted hepatitis B infection have presented to general practitioners.³ Although genitourinary medicine clinics are the main setting for detecting outbreaks their impact in primary care should be monitored. Thirdly, the validity of panel surveys will depend on a high response rate and postal invitations often have low uptake.⁴

A single system cannot fulfil all the requirements for infectious disease surveillance. Laboratory reporting remains incomplete⁵ and denominator data need to be available for infections other than chlamydia for appropriate interpretation of time trends. Routine collection of data on laboratory diagnosed sexually transmitted infections from all clinical settings and linkage to demographic data could complement current proposals.

The Avon Surveillance System for Sexually Transmitted Infections (ASSIST) integrates person based genitourinary clinic and laboratory data to provide information for action at local level and to inform national initiatives.⁶ Data on positive and negative tests for laboratory diagnosed infections taken in any clinical setting are collected from the Health Protection Agency and trust laboratories. Postcode information for geographical mapping and small area analysis is obtained by

matching pseudoanonymised data with GP registration databases. These data are also matched to disaggregate data from genitourinary and Brook clinics to identify duplicate tests and obtain geographic data for infections diagnosed in these settings.

ASSIST project data can be used to estimate the population burden of diagnosed infections and explore associations with demographic and socioeconomic characteristics over time. Automating regular data downloads and reporting will improve the timeliness of data collection to facilitate identification and monitoring of outbreaks. The wide coverage of the system can guide local service development and clinical practice and monitor the impact of the Sexual Health Strategy. For example, in 2001 half of all chlamydia tests and 44% of positive results came from GP, family planning, or Brook clinics. Nearly two thirds (62%) of those tested in general practice were over 25 years old in whom the positivity rate was 4% compared with 11% for under 25 year olds.

We propose that, while behavioural data obtained from panel surveys in primary care provide depth, sentinel surveillance of laboratory diagnosed infections in all clinical settings provides breadth, and both are needed for effective surveillance.

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References

- Simms I, Hurlig A-K, Rogers PA, *et al.* Surveillance of sexually transmitted infections in primary care. *Sex Transm Infect* 2003;**79**:174–6.
- Department of Health. *National strategy for sexual health and HIV*. London: DoH, 2001.
- Greenhouse P, *et al.* Leeds: MSSVD Spring Meeting, 12–14 June 2003.
- Andersen B, Olesen F, Møller JK, *et al.* Population-based strategies for outreach screening of urogenital chlamydia trachomatis infections: a randomized, controlled trial. *J Infect Dis* 2002;**185**:252–8.
- Hughes G, Paine T, Thomas D. Surveillance of sexually transmitted infections in England and Wales. *Eurosurveillance* 2001;**6**:71–80.
- Slater W, Low N for the ASSIST Project Group. *Avon Surveillance System for Sexually Transmitted Infections*. Eastbourne: Faculty of Public Health Medicine Annual Scientific Meeting, June, 2003:24–6.

Comparison of the serological response to treatment of early syphilis in HIV positive versus HIV negative individuals

The effectiveness of treatment for syphilis is evaluated by demonstrating declining titres of the non-treponemal antibody tests—for example, the rapid plasma reagin (RPR). The serological response in HIV co-infected individuals has been the subject of debate, with some studies reporting a similar serological response^{1,2} and others a delayed response in HIV positive patients.^{3,4}

A resurgence of infectious syphilis has occurred in Manchester, United Kingdom, in recent years.⁵ From January 1999 to August 2002, 379 cases of early syphilis were